FIFTEEN TIPS FOR STUDYING ACCOUNTING

by: Tom Conway, OFM

1. **The sequence is intentional.** Keep in mind that the accounting course that you are taking is one in a sequence of courses. It has been placed where it is because that course's material is derived from material from one or more earlier courses. Make sure that you have access to textbooks of your earlier courses. (If you're a little bit inclined to take courses out of order, forget it!)
2. **The material within a given course is often sequential.** This is especially true of Accounting I. That is, the material covered early in the course is necessary to do problems covered later in the course. If you don't understand the first few chapters of the textbook, you need to go back and study those chapters before going on to later ones.
3. **Determine the scope of the course.** It's not unusual for particular chapters or particular sections of chapters to be deleted from the scope of a course.
4. **Practice, practice, practice.** There is tremendous value in going over as many problems as you can.
5. **You're trying to learn as many points as you can.** If you get stuck on a particular point, don't spend a long time trying to look it up or figure it out. Make a note of it and ask a friend or the professor about it later.
6. **Novels are meant to be read from beginning to end. Accounting textbooks are not.** Skim the text, use the index, jump around, read the questions at the end of the chapter, look at tables and charts, cross-reference things, and notice the section headings. You're dealing with technical language: it's not unusual to have to read a given paragraph several times before you understand it.
7. **We're not in Kansas anymore.** In a history class, if you know 90% of the information about each presidency, war, historical movement, etc., then you'll probably be fine. In accounting, you often have to know how to finish the problem. This is especially true for multiple-choice exams. For this reason, it's often better to completely understand some problems (and not know how to do other problems) than to have a somewhat vague notion of how to approach every type of problem. Also, having a strong understanding of one type of problem will sometimes give you a clue as to how to approach a seemingly unrelated problem that you never studied.
8. **Sorry to disappoint you, but accounting isn't exactly like math.** In math, the rules tend to be absolute. In accounting, many of the rules have exceptions and often the "final answer" (for example, a recommendation to a company) depends a great deal on the context of the problem.
9. **But wait, currency doesn't come in negative denominations.** Get in the habit of asking yourself if your final answer makes sense in the context of the problem.
10. **Find a partner.** Spend part of your study time by yourself and part of your study time with someone else. A portion of the study time by yourself can be used to identify what things you understand and what things you don't. You and your study partner can trade notes on this and teach each other. Studies have shown

that by teaching others you ensure that you will recall the information later. The most important rule about working with someone else: keep to the task! Work hard to keep to the subject at hand. Interrupt your partner when he/she starts talking about unrelated topics.

11. **Learn the vocabulary.** There is no quicker tip-off to the professor that you don't know what you're doing than using terminology inappropriately. (For example, the clueless student will typically sprinkle the term "money" liberally throughout an essay while accounting textbooks seldom use the term.) Most accounting textbooks have at least one glossary. Also, most textbooks put the key terms in boldface type. Do enough reading of the textbooks to understand how the author uses each important term.
12. **Don't be fatalistic.** Yes, accounting is difficult. Yes, accounting is hard work. Yes, it takes time. No, it's not impossible. Most good students report having some breakthrough moments: times when suddenly a range of topics suddenly make sense. You might be closer than you think to having one of those breakthroughs.
13. **Develop a sense of curiosity.** There are many rules in accounting which seem at first to be either contradictory or counterintuitive or both. Try to figure out why the rule exists and talk to other people about it. The really good students treat accounting as one big puzzle-game which they expect to win!
14. **Take some satisfaction in the fact that you're doing something difficult.** Even though accounting is a very marketable skill, that's not the best reason to study it. The best reason to study accounting is that it helps develop your ability to do analytic thinking.
15. **Bad things happen.** If nothing else motivates you to study, remind yourself that it's very possible to get a "D" or an "F" in an accounting course. This worst-case scenario plays itself out for some students every semester. Use this fact as motivation when you are debating whether to study accounting or to go out for pizza.

Source: www.siena.edu/advising/accttips.htm

Tips for Studying Mathematics

Active Study vs. Passive Study

Be **actively** involved in managing the learning process, the mathematics and your study time:

- Take responsibility for studying, recognizing what you do and don't know, and knowing how to get your Instructor to help you with what you don't know.
- Attend class every day and take complete notes. Instructors formulate test questions based on material and examples covered in class as well as on those in the text.
- Be an active participant in the classroom. Get ahead in the book; try to work some of the problems before they are covered in class. Anticipate what the Instructor's next step will be.
- Ask questions in class! There are usually other students wanting to know the answers to the same questions you have.
- Go to office hours and ask questions. The Instructor will be pleased to see that you are interested, and you will be actively helping yourself.
- Good study habits throughout the semester make it easier to study for tests.
- Take responsibility for keeping up with the homework. Make sure **you** find out how to do it.
- You probably need to spend **more** time studying per week - you do more of the learning **outside** of class than in High School.
- Tests may seem harder just because they cover more material.
- Take as much time as you need to do all the homework and to get complete understanding of the material.
- **Form a study group.** Meet once or twice a week (also use the phone). Go over problems you've had trouble with. Either someone else in the group will help you, or you will discover you're all stuck on the same problems. Then it's time to get help from your Instructor.
- The more challenging the material, the more time you should spend on it.

Studying for a Test

- **Start** by going over each section, reviewing your notes and checking that you can still do the homework problems (actually **work** the problems again). Use the worked examples in the text and notes - cover up the solutions and work the problems yourself. Check your work against the solutions given.
- **You're not ready yet!** In the book each problem appears at the end of the section in which you learned how do to that problem; on a test the problems from different sections are all together.

- Step back and ask yourself what kind of problems you have learned how to solve, what techniques of solution you have learned, and how to tell which techniques go with which problems.
- Try to explain out loud, in your own words, how each solution strategy is used (e.g. how to solve a quadratic equation). If you get confused during a test, you can mentally return to your verbal "capsule instructions". Check your verbal explanations with a friend during a study session (it's more fun than talking to yourself!).
- Put yourself in a test-like situation: work problems from review sections at the end of chapters, and work old tests if you can find some. It's important to keep working problems the whole time you're studying.

➢ Also:

- Start studying early. Several days to a week before the test (longer for the final), begin to allot time in your schedule to reviewing for the test.
- Get lots of sleep the night before the test. Math tests are easier when you are mentally sharp.

Source: http://euler.slu.edu/Dept/SuccessinMath.html

~How to Study for a Music Class~

Students should prepare a definition, description, and (or) explanation of every name, title, or term discussed in class. In essence, each should follow the principle of "who, what, when, where". This definition, description, or explanation should include each of the following:

1. Brief description—one or two sentences—of what the name, title, or term represents. (This might be the sort of thing found as the first few lines of a dictionary entry for the name, title, or term. For a composer, this must include the place of birth, and locations where the composer worked, visited, and lived.)

2. A date, or span of dates, that applies for the name, title, or term. This should be one or both of a specific date, or pair of dates, and an overall general description, such as "early seventeenth century".

3. An indication of the place, or places where the person or item was present or active. This might include a city, a state, a country, and a continent, as appropriate.

4. For terminology, an example of the item named as it normally appears in music notation.

5. Examples of music, with dates, that represents the name, title, or term. For a composer, this would be music composed by the composer; for a performer, music performed by that performer. For terminology, this would be examples of music that use the item in question. When appropriate, the examples may be very specific, including not just particular pieces, but also exact locations within individual pieces.

Source: http://plato.acadiau.ca/courses/musi/callon/1293/stu-tips.htm

~Tips for Studying Biology~

Study Idea #1. *Type out your notes.*

1. It eliminates visual distractions on the page. It makes your notes appear clean and, hopefully, concise.

2. It forces you to re-visit the material. This is especially helpful when you have not reviewed the material for awhile. You will have an easier time when you eventually sit down and try to memorize things, trust me.

3. It produces a "self-test". When I sit down to type my notes, I often format them into two columns. One column is the "question" side, and one column is the "answer" side. This way I can cover up the "answer" column and test myself before the exam. Another format I use when typing my notes is simply to write out the question, skip a few lines of text, and then type out the answer. I quiz myself by trying to answer the questions on a piece of paper and then checking them with the typed answer.

Study Idea #2.*Use your artistic abilities.*

This idea is good for studying complex processes and detailed concepts. I start by breaking down my complicated notes into little segments of information. Whenever possible I try to incorporate simple, bright illustrations. **In creating these "mini-billboards" of information, I am able to familiarize myself with the material without getting overwhelmed by all the details.** After I have come to understand the basic concepts, I build on my knowledge and start memorizing the details. Typically, this means that I turn to note-cards or my typed notes to help with memorization. But visual aids are a great way to start tackling complicated information.

Study Idea #3.*You can learn a lot in 15 minutes.*

I take my notes everywhere and study them during all of life's "in-between" moments. These short study periods are helpful because the material is more familiar to me when I sit down at night to really concentrate on memorizing. **A couple minutes here and there eventually add up**, and when you are pressed for time, these precious snippets of studying really count.

Study Idea #4.*Break things up.*

To help break up the material and the long periods of study time, **I divide my typed notes into short packets of four or five pages each.** Each day I try and learn the material of one packet. As my learning progresses, I review multiple packets in one study session. To really learn the material, I normally plan out my study schedule so that I have two full days to review all of the material. This means that I have to start studying well

before the exam date, but I am able to walk into the classroom on the day of testing feeling very confident with my knowledge of the material.

Study Idea #5. *It's all about the atmosphere***.**

Find a place that is conducive to studying. This means: 1. You want to go somewhere where you won't be interrupted. Sometimes this means getting away from webmail and telephones and the like. 2. Make sure you have plenty of pencils and paper, and that you bring your textbook along to answer any questions that may arise during the course of your studying.

Study Idea #6.*Go to all the review sessions.*

This will work for you in multiple ways. First off. your professor will know that you are serious about learning the material. Secondly, they incorporate yet another way for you to familiarize yourself with the topics under study. Review sessions are also helpful for the obvious reason that they allow you the chance to ask questions concerning material that still is unclear to you. Finally, they allow you to hear the questions of others. This is important because other students may present questions that you never thought of. I always look at review sessions as an opportunity to "polish-up" on my knowledge of the material.

Study Idea #7.*Write down your questions and visit your professor during office hours.*

Professor's are often pressed for time, especially when an exam is near. When studying, I keep a running list of questions. I make note of concepts that are still unclear to me. To answer these questions and clear up my understanding of the material, I first consult my textbook. If the textbook does not sufficiently cover my question, then I approach my professor during office hours. I bring the list of questions with me this way I am assured that all of my questions will be answered.

Study Idea #8.*Believe in yourself.*

If you have taken an active role in learning the material, then walk into the classroom on the day of the exam with a smile. You prepared yourself well. Now is the chance to show your professor how much you've learned.

Source: http://biology.kenyon.edu/HHMI/Biol113/aboutme.htm

HOW TO STUDY FOR ECONOMICS COURSES

TAKING NOTES IN CLASS

- Before class: At least pre-skim related readings and review lecture notes from previous class; look at problems in the study guide; make note of new terms, concepts, measures, models, graphs, and theories; formulate questions.
- During class: Have questions in mind as the lecture begins; adapt a format which allows a wide left-hand margin for summarizing and editing your notes plus a narrow right-hand margin for recording your own insights, questions, etc.; be alert to assumptions underlying hypotheses and note how hypotheses are tested against observational data.
- After class: Review and edit your notes; use the left-hand margin to summarize material and list key terms; "test" yourself as soon as possible to recall lecture highlights.

READING THE TEXT

- Preview the material: Look at sub-headings, graphs, questions at the end of chapter; note new terms.
- Read **actively**: Formulate questions before you read (from lecture notes and preview) and then read to answer those questions; translate abstract concepts to specific instances; know what every term and symbol means.
- Analyze graphs thoroughly: What "economic story" is being told?; what are the assumptions?; note units of measurement on each axis; note direction (positive or negative) of the relationship.
- Recall: Test yourself immediately and cumulatively at the end of each section; then use a combination of marginal notations and underlining to summarize.
- Reflect: Set aside time to question and criticize what you've read — then make notes of those thoughts.

PREPARING FOR EXAMS

- Integrate and review lecture and text notes; make a list of key topics, concepts, problems, theories, models, and terms.
- Review via ACTIVE RECALL rather than just passive re-reading.
- Re-work homework questions and workbook problems.
- Practice using the information in the form that will be required by the test format; predict test questions and problems and practice answering them.
- Realize that various test questions will ask you to know, comprehend, apply, and analyze what you've studied.

TAKING EXAMS

- Glance over the whole exam quickly, assessing questions as to their level of difficulty and point value; set time goals for each section accordingly.
- Begin to work the questions which are easiest for you; the others will be easier when you've "warmed up."
- Maximize partial credit possibilities by attempting all questions.
- Save time at end of exam for re-reading and editing.
- Analyze returned tests to prepare for future ones.

Source: TIhttp://www.utexas.edu/student/utlc/lrnres/handouts/1409.htmlPS

TIPS ON STUDYING A FOREIGN LANGUAGE

Though many students may feel they have a mental block or even lack the aptitude for learning foreign languages, most can learn a second language IF they are willing to put in the necessary time. Here are some practical suggestions for studying effectively, overcoming anxiety, and learning the grammar and skills necessary for success in college foreign language classes.

1. **STUDY EVERY DAY.** A foreign language course is different from any other course you take. Language learning is cumulative: you cannot put it off until the weekend. Study 1 or 2 hours for every class hour if you want an A or B.
2. **DISTRIBUTE YOUR STUDY TIME** in 15- to 30-minute periods throughout the day. Focus on a different task each time: vocabulary now, grammar next, etc. Get an overview during the first half hour: spend 10 minutes reviewing dialog, 10 minutes learning new vocabulary, 10 minutes learning new grammar ... so you'll at least have looked at it all. Approximately 80% of your study time should be spent in recitation or practice, including practice in the language lab.
3. **ATTEND AND PARTICIPATE IN CLASS WITHOUT FAIL** — even if you are not well prepared. Class time is your primary opportunity for practice. Learn the grammar and vocabulary outside of class in order to make the most of class time. Spend a few minutes "warming up" before each class by speaking or reading the language.
4. **MAKE YOURSELF COMFORTABLE IN THE CLASS.** Get to know your classmates so you will feel you are among friends. Visit your instructor during office hours to get acquainted: explain your goals and apprehensions about the course.
5. **LEARN ENGLISH GRAMMAR IF YOU DON'T ALREADY KNOW IT.** Grammar is the skeleton of a language, its basic structure: you must learn it. Review a simplified English grammar text. Compare new grammatical structures in your foreign language to their English equivalents.
6. **PRACTICE FOR TESTS** by doing what you will have to do on the test. If the test will require you to write, then study by writing — including spelling and accents. If you will be asked to listen, then practice listening. Ask for practice questions; make up your own test questions. Invent variations on patterns and forms. Over-learn: study beyond the point of recognition to mastery.
7. **DEVELOP A GOOD ATTITUDE.** Have a clear personal reason for taking the class. Set personal goals for what you want to learn. Leave perfectionism at the door; give yourself permission to make mistakes and learn from them.
8. **GET HELP IF YOU NEED IT.** Talk with your teacher. Form study groups among class members. Use tutoring services. Don't wait!

READING and WRITING a foreign language are analytical skills. You may be good at these if you are a logical person who attends to detail. Train yourself through practice to notice and remember details such as accents and gender agreement.

READING SKILLS TIPS:

- First, read the vocabulary list for the assignment. Next, read the questions over the reading. Then read all the way through a new passage two or three times, guessing at meaning from context. Avoid word-by-word translation.
- Isolate new vocabulary and study it separately. DON'T write between the lines! Make flash cards. Carry them with you and recite them several times during the day at odd moments. Over-learn them until they are automatic.
- Isolate new grammatical forms and study them separately. Write the pattern on a flash card and memorize it. Write out and label a model sentence. When you encounter the form while reading, pause and recite the pattern to recognize the form.

WRITING SKILLS TIPS:

- Pay attention to detail: notice accents, order of letters, etc. Compare letter-by-letter different forms (singular, plural, gender, etc.). Write out conjugations of verbs, declensions of pronouns, etc., and check your endings. Memorize irregular verbs.
- To master spelling, have a friend dictate 10 words to you. Write them out and immediately have your friend spell them correctly aloud while you look carefully and point at each letter. Repeat until you get all the words right.
- Write (in your own simple foreign vocabulary words) a story you have just read.

LISTENING and **SPEAKING** are performance skills. You may do well at these if you are naturally gregarious. Students in foreign language classes often have difficulty hearing and speaking because they are anxious about making mistakes. Give yourself permission to be spontaneous and to take risks.

LISTENING SKILLS TIPS:

- Frequent the language lab. Read the exercises in your book first; then listen and read together; then listen without looking at the print. Say aloud/write what you hear.
- Participate silently in class when others are called on to speak. Focus on the task; don't worry about how you'll do.
- If you feel nervous, relax yourself physically by taking a couple of slow, deep breaths. When called on, pause, relax, and give yourself time to respond.
- Listen while a friend dictates to you and write what you hear. Check for accuracy.
- Practice: join language clubs, watch foreign TV, listen to foreign radio.

SPEAKING SKILLS TIPS:

- Study out loud! Mimic the sounds of the language. Don't mumble. Although most people feel embarrassed making strange sounds, the language will soon feel more familiar to you.
- When called on in class, say something, even it it's wrong: you'll learn from it. If you need a moment to think, repeat the question. If you don't know the answer, say in your foreign language, "I don't know" or "help!"
- Practice with a foreign student who wants your help to learn English or with another class member.

READING AND CRITICAL THINKING FOR UNDERGRADUATE GOVERNMENT COURSES

Effective learning in an undergraduate government course depends to a great extent on your willingness to learn, to be open to diverse opinions, and to formulate your own opinions. You do not need to have a strong background in government to perform well in 310L or 312, for example. It is more important that you gain the factual information on which to build your own assessments and opinions of the political theories and practices about which you are learning. How can you gain this information and become an effective student of government?

CONSIDER THESE SUGGESTIONS:

1. Get to know your textbook. Carefully read the introduction and preface. What is the author's background? What is his political orientation? What are his biases? What does he want you to learn by reading this book? How is the textbook organized? Look at the table of contents, the glossary, the index. How is each chapter organized and what study aids does it contain? Plan to use the organization of the text to help you study it effectively.
2. What organizational pattern/patterns does the author use? Details and illustrations? Definition? Cause and Effect? An awareness of these approaches will help you to better comprehend and retain the information.
3. Check your vocabulary. The new vocabulary you encounter in a government course will be fundamental to your understanding. Plan on making flash cards and using them to help you review essential vocabulary.

   EX:

laissez-faire	policy of gov't non-intervention in the economy
FRONT	**BACK**

4. In studying government, think about what you are reading or learning in lectures. You will often be asked to analyze, synthesize or evaluate what you are learning. Practice these skills while studying. For example: Define liberalism. How has this theory been implemented in American government? Who were its major proponents? In what ways is it workable? What have been some negative aspects of this theory?

   Example of analysis:

   ANALYSIS: By making a careful study of liberal programs, be able to state four or five of the major assumptions upon which liberalism is based — assumptions about the nature of humans and human institutions, the purpose of government, the role of government in solving social problems, etc.

   Example of synthesization:

   SYNTHESIZATION: By making a careful study of the material in the textbook on liberalism and conservatism, formulate a system of classification in which the liberal and conservative positions on major social issues are compared.

Example of evaluation:

EVALUATION: Judge the logical consistency of the liberal and conservative positions on the major social issues developed in your systems of classification.

5. As you study and prepare for exams, generate general questions and then narrow them into categories where examples may fall. Professor J. Frederick MacDonald, UCLA, created the following mnemonic device to help you remember important categories:

S	Social
T	Technological
A	Administrative
M	Military
P	Political
I	Intellectual
E	Economic
R	Religious
E	external (foreign policy)

Through categorizing, you may take a general study question such as "What are the implications of the Bakke decision of Affirmative Action programs?" and focus your answer on, for example, the social, political and economic implications of that Supreme Court decision.

6. **BEWARE** of falling behind on your reading and/or reviewing lecture notes. It is unfortunately very easy in social sciences courses to let your assignments build up. Set aside a time early each week to get an overview of your reading assignments and break them down so that you can tackle a manageable number of pages each day, and so that you can complete relevant readings before they are discussed in class. Also, get into the habit of reviewing your lecture notes immediately or as soon after class as possible. The more you can learn material the first time you encounter it, the better your retention will be. Ideally, by the time you are preparing for your exams, you will be reviewing, not relearning.

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How to Study Math and Science

PREVIEWING

Before class briefly preview the text material that will be covered in the lecture.

1. Get an overview of the material by reading the introductory and summary passages, section headings and subheadings, and diagrams.
2. Look at the problems at the end of the chapter.
3. Make note of new terms and theorems.
4. Review (if necessary) old terms and definitions referred to in the new material.
5. Formulate possible questions for class.

Remember, the purpose of previewing is not to understand the material but to get a general idea of what the lecture will cover. This should **not** be a very time-consuming process.

NOTE-TAKING

When taking notes in class, listen **actively**; intend to learn from the lecture.

1. Write down the instructor's explanatory remarks about the problem.
    - Note how one gets from one step of the problem to another.
    - Note any particular conditions of the problem.
    - Note why the approach to the problem is taken.
2. Try to anticipate the consequences of a theorem or the next step in a problem. During a proof, keep the conclusion in mind.
3. Note any concepts, rules, techniques, problems that the instructor emphasizes.
4. Question your instructor during class about any unclear concept or procedure.
5. If you miss something in the lecture or don't understand what's being presented, then write down what you **can** catch — especially key words. Be sure to skip several lines so you can fill in the missing material later.
6. As soon as possible after class, summarize, review, and edit your notes.
    - Quickly read through your notes to get an overview of the material and to check for any errors or omissions.
    - Fill in any information — especially explanatory remarks (see #1 above) — that you did not have time to write down or that the instructor did not provide.
    - Use the margin or the back of the opposite page to summarize the material, list key terms or formulas, and rework examples. You can also use this space to take notes from the textbook.
    - Note any relationship to previous material; i.e., write down key similarities and differences between concepts in the new material and concepts in previously learned material.
7. Review your notes at regular intervals and review them with the intent to learn and retain.

TEXT READING

If your class lectures provide a good overall structure of the course, you can use your text to clarify and supplement your lecture notes. In order to create a single study source, insert the notes you take from the text into your lecture notes themselves as well as in the margin or the back of the opposite page.

If your **text** provides the best overall structure of the material, then you can use your lecture notes as the supplementary source. In either case consider the following procedures:

1. Briefly preview the material. Get an overview of the content and look at the questions at the end of the chapter.
2. Read **actively** and read to understand thoroughly.
    - Formulate questions before you read (from lecture notes or from previewing) and read to answer those questions.
    - Know what every word and symbol means.
    - Translate abstract formulas to verbal explanations.
    - Analyze the example problems by asking yourself these questions:
        - What concepts, formulas, and rules were applied?
        - What methods were used to solve the problem? Why was this method used?
        - What was the first step?
        - Have any steps been combined?

    - What differences or similarities are there between the examples and homework problems? Further analyze the example problems by using the following procedures:

        - Explain each step using your own words. Write these explanations on paper.
        - Draw your own diagrams to illustrate and explain problems.
        - For practice, write down example problems from your book, close your book, and try to work the problems. Check your work with the example to find what concepts, rules, or methods you are having trouble with.
    - Check to see how the material relates to previous material. Ask yourself these questions:
        - How was the material different from previous material?
        - How was it the same?
        - What totally new concepts were introduced and how were they applied?
        - Where does this material "fit" within the overall structure of the course?
3. Stop periodically and recall the material that you have read.
4. Review prerequisite material, if necessary.

PROBLEM SOLVING

Solving problems is usually the most important aspect of math or science courses. You must, therefore, spend much of your study time either working or studying problems. When working a problem, follow these steps:

1. Read through the problem at a moderate speed to get an overview of the problem.
2. Read through the problem again for the purpose of finding out what the problem is asking for (your unknown). Be able to state this in your own words.
3. If appropriate, draw a diagram and label the givens.
4. Read each phrase of the problem and write down (symbolically or otherwise) all information that is given.
5. Devise a tentative plan to solve the problem by using one or more of the following tactics:
    - Form relationships among all facts given. (Write an equation that includes your unknown.)
    - Think of every formula or definition that might be relevant to the problem.

    - Work backwards; ask yourself, "What do I need to know in order to get the answer?"
    - Relate the problem to a similar example from your textbook or notes.
    - Solve a simpler case of the problem using extremely large or small numbers; then follow your example as if it is an example from the text.
    - Break the problem into simpler problems. Work part of the problem and see if it relates to the whole.
    - Guess an answer and then try to check it to see if it's correct. The method you use to check your answer may suggest a possible plan.
    - If you are making no progress, take a break and return to the problem later.
6. Once you have a plan, carry it out. If it doesn't work, try another plan.
7. Check your solution.
    - Check to see if the answer is in the proper form.
    - Insert your answer back into the problem.
    - Make sure your answer is "reasonable."

During the problem solving process, it is often helpful to say out loud all of the things you are thinking. This verbalization process can help lead you to a solution.

PROBLEM ANALYSIS

After you have worked a problem, analyze it. This can help sharpen your understanding of the problem as well as aid you when working future problems.

1. Focus on the processes used (not the answer) and ask yourself these questions:
    - What concept, formulas, and rules did I apply?
    - What methods did I use?
    - How did I begin?
    - How does the solution compare with worked examples from the textbook or my notes?
    - Can I do this problem another way? Can I simplify what I did?
2. Explain each step using your own words. Write these explanations on your paper.

TEST PREPARATION

If you have followed an approach to study as suggested in this handout, your preparation for exams should not be overly difficult. Consider these procedures:

1. Quickly review your notes to determine what topics/problems have been emphasized.
2. Look over your notes and text. Make a concept list in which you list major concepts and formulas which will be covered.
3. Review and rework homework problems, noting why the procedures applied.
4. Note similarities and differences among problems. Do this for problems within the same chapter and for problems in different chapters.
5. Locate additional problems and use them to take a practice test. Test yourself under conditions that are as realistic as possible (e.g., no notes, time restriction, random sequence of problems, etc.). Also try to predict test questions; make up your own problems and practice working them.

TEST TAKING

1. Glance over the whole exam quickly, assessing questions as to their level of difficulty and point value. Also get a sense of how much time to spend on each question. Leave time at the end to check your work.
2. Begin to work the problems which seem easiest to you. Also give priority to those problems which are worth the most points.

3. Maximize partial credit possibilities by showing all your work.
4. If you have a lapse of memory on a certain problem, skip the problem and return to it later.

TEST ANALYSIS

Analyzing returned tests can aid your studying for future tests. Ask yourself the following questions:

- Did most of the test come from the lecture, textbook, or homework?
- How were the problems different from those in my notes, text, and homework?
- Where was my greatest source of error (careless errors, lack of time, lack of understanding of material, uncertainty of which method to choose, lack of prerequisite information, test anxiety, etc.)?
- How can I change my studying habits to adjust for the errors I am making?

IMPORTANT: The knowledge of most math/science courses is cumulative. Many concepts build on previous concepts, and a poor understanding of one concept will likely lead to a poor understanding of future concepts. Consequently, you should seek help early, if you encounter difficulty.

Source: University of Texas at Austin Learning Center